

Amendment to the Claims

1. – 6. (cancelled):

7. (currently amended): An apparatus for providing connectivity to the Internet over a high speed access network, said apparatus comprising:

- a) a protocol stack for receiving a request from a computer device for an IP address, wherein said request comprising point-to-point protocol (PPP) messages encapsulated over Ethernet packets is in a format compatible with a wide-area network; and
- b) a translator for translating said PPP messages into dynamic host configuration protocol (DHCP) messages to request an IP address request from said format compatible with a wide-area network into a local-area network compatible request.

8. (cancelled)

9. (original): The apparatus of claim 7 wherein said apparatus supports a connection to a twisted wire pair network using xDSL transmission.

10. (original): The apparatus of claim 7 wherein said apparatus supports a connection to a hybrid fiber coaxial cable network.

11. (original): A method for use in a network environment for an assignment of Internet Protocol (IP) address, the method comprising:

- a) establishing a local Point-to-Point Protocol (PPP) session between a computer device and a local network interface device to acquire an IP address for the computer device;
- b) using a Dynamic Host Configuration Protocol (DHCP) between the local network interface device and a remote server to acquire the IP address; and
- c) relaying said IP address to the computer device using a PPP-based message.

12. (original): The method of claim 11 further comprising:

- d) periodically sending from the local network interface device a lease renewal message to the server to renew the IP address.

13. (original): A proxy method for a universal access mechanism to a broadband access system, the method comprising:

- a) requesting a connection to a broadband access network through a network interface device from a Local Area Network (LAN) -attached device;
- b) establishing a Point-to-Point Protocol Over Ethernet (PPPoE) connection to an access server connected to said broadband access network;
- c) performing protocol encapsulation and de-encapsulation for relaying messages transmitted between the broadband access network and the LAN-attached device for the duration of the PPPoE connection.